

Serial No. 10/773,503
Preliminary Amendment filed Sept. 10, 2004

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of the Claims

1-36. (Cancelled).

37. (New) An electrosurgical instrument having an end effector, the end effector configured to simultaneously provide radio frequency power and a fluid to treat tissue, the power sufficient to cause a dimensional change of the tissue, the end effector comprising:

at least one electrode;

at least one fluid outlet; and

a dimensional change sensor to detect the dimensional change of the tissue.

38. (New) The electrosurgical instrument of claim 37 wherein:

the dimensional change sensor is configured to move relative to the dimensional change of the tissue.

39. (New) The electrosurgical instrument of claim 37 wherein:

the dimensional change sensor is configured to provide feedback to vary the radio frequency power according to the dimensional change of the tissue.

40. (New) The electrosurgical instrument of claim 37 wherein:

the dimensional change sensor is configured to provide feedback to treat the tissue to a predetermined dimensional change.

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41. (New) The electrosurgical instrument of claim 37 wherein:
the dimensional change sensor is configured to provide feedback to measure the dimensional change.
42. (New) The electrosurgical instrument of claim 37 wherein:
the dimensional change sensor is operatively associated with a device to provide a measurement of the dimensional change.
43. (New) The electrosurgical instrument of claim 37 wherein:
the dimensional change sensor is operatively associated with means to provide a measurement of the dimensional change.
44. (New) The electrosurgical instrument of claim 37 wherein:
the dimensional change sensor comprises a contact sensor.
45. (New) The electrosurgical instrument of claim 37 wherein:
the dimensional change sensor comprises a shrinkage sensor; and
the dimension change of the tissue comprises a shrinkage of the tissue.
46. (New) The electrosurgical instrument of claim 45 wherein:
the shrinkage sensor is configured to move relative to the shrinkage of the tissue.
47. (New) The electrosurgical instrument of claim 45 wherein:
the shrinkage sensor is configured to provide feedback to vary the radio frequency power according to the shrinkage of the tissue.

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48. (New) The electrosurgical instrument of claim 45 wherein:
the shrinkage sensor is configured to provide feedback to treat the tissue to a predetermined shrinkage.
49. (New) The electrosurgical instrument of claim 45 wherein:
the shrinkage sensor is configured to provide feedback to measure the shrinkage.
50. (New) The electrosurgical instrument of claim 45 wherein:
the shrinkage sensor is operatively associated with a device to provide a measurement of the shrinkage.
51. (New) The electrosurgical instrument of claim 45 wherein:
the shrinkage sensor is operatively associated with means to provide a measurement of the shrinkage.
52. (New) The electrosurgical instrument of claim 37 further comprising:
a monopolar electrosurgical instrument.
53. (New) The electrosurgical instrument of claim 37 further comprising:
a bipolar electrosurgical instrument.
54. (New) The electrosurgical instrument of claim 37 wherein:
the at least one fluid outlet is positioned to provide the fluid onto the at least one electrode.
55. (New) The electrosurgical instrument of claim 37 wherein:
the at least one fluid outlet is at least partially defined by the at least one electrode.

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56. (New) The electrosurgical instrument of claim 37 wherein:
the at least one fluid outlet is at least partially defined by a hole in the at least one electrode.
57. (New) The electrosurgical instrument of claim 37 wherein:
the at least one fluid outlet is configured to provide the fluid to wet the at least one electrode.
58. (New) The electrosurgical instrument of claim 37 wherein:
the at least one electrode comprises a plurality of electrodes.
59. (New) The electrosurgical instrument of claim 37 wherein:
the at least one fluid outlet comprises a plurality of fluid outlets.
60. (New) The electrosurgical instrument of claim 37 wherein:
the at least one electrode comprises a first electrode and a second electrode; and
the at least one fluid outlet comprises a first fluid outlet and a second fluid outlet.
61. (New) The electrosurgical instrument of claim 60 wherein:
the first fluid outlet is positioned to provide the fluid onto the first electrode; and
the second fluid outlet is positioned to provide the fluid onto the second electrode.
62. (New) The electrosurgical instrument of claim 60 wherein:
the first fluid outlet is configured to provide the fluid to wet the first electrode; and
the second fluid outlet is configured to provide the fluid to wet the second electrode.

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63. (New) The electrosurgical instrument of claim 37 wherein:
the end effector comprises a jaw.
64. (New) The electrosurgical instrument of claim 37 wherein:
the end effector comprises a forceps.
65. (New) The electrosurgical instrument of claim 37 wherein:
the dimensional change sensor comprises a clamp structure to grasp the tissue.